# Egg Box Directions - Sanding, Finishing, and Gilding

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### **Exterior**

While the piece is on the lathe I sand through whatever grits I happen to have. Usually I use 120, 220, 320, 400, 600, and 1200. Occasionally I go to 2000. Starting at about 400 grit, I stop the lathe and sand in the direction of the grain to remove any visible sanding marks before moving on to the next grit.

Using a spray lacquer I spray up to 6 coats of lacquer, applying 0000 steel wool in between coats to knock it back down.

Finally I apply a very thin coat of Renaissance Wax and buff with a swans-down mop. The Carnauba Wax of the Beal system can also be used, but it doesn't hold up to handling as well as the Renaissance.

#### **Interior**

For the inside of the eggs I sand through the same grits, all the way to 2000. For the 2" eggs I sand using a "custom made" sanding pad that matches the contour of the inside of the egg. The pads are made out of the small plastic Easter eggs that kids get in their baskets at Easter time. I cut them along longitudal lines into quarters. Take one of the quarters and apply sticky backed Velcro to it. I then cut a 3" Velcro backed sanding disk into shapes that match the pad. These sanding pads easily get to the bottom of the eggs and if you make one from the top half of the egg, and one from the bottom half, you have custom fit sanders for both parts of your egg.

If the egg is going to be gilded, I do not apply any finish after the final sanding. Otherwise, they are lacquered or they just get a coating of wax.

#### Gilding

The most important step in gilding the inside of the eggs is the sanding. Any, and I do mean any imperfection, no matter how minute will show up when gold leaf is applied, a scratch from 400 grit wet/dry paper will show up like the Grand Canyon when gold is applied.

Heavily grained or porous woods will require grain filler. Use any sandable filler and apply per the manufacturers directions. Famowood is good, if thinned with Acetone and applied quickly. It dries very quickly and is easy to sand.

After sanding is done, apply coats of a burnishing sealer or primer to the area to be gold leafed. Burnishing sealer is a special primer that helps cover imperfections, seals the surface for the size to adhere, and allows the best possible shine from the gold. I use an ochre colored burnishing sealer from Rolco. Use as many coats as necessary to get an absolutely smooth and flawless surface. Use the best quality brush you have. Between coats use 0000 steel wool to scuff up the

surface and knock down the high spots. Usually 2 or 3 coats are enough. The goal after this step is to have a very smooth finish.

Size is glue that the gold leaf will stick to. It is applied over the burnish sealer. Be extremely careful in applying the size as gold leaf will stick to any area that you get the size on. For the eggs, it's fairly easy to stay within the lines. Do not apply size to the rabbet where the tenon goes into or to the tenon itself. There are many types of size available, water based, oil based, slow set, and fast set, natural and synthetic. A slow setting size is more preferable as it allows more time for the size to flow out and hide brush marks. The fast setting size dries too quickly, and you end up with a brush mark in your gold leafing after all the time you spent on preparing the surface. I use Rolco Slow Set oil based size. Apply a thin coat with a quality brush. Use a bright light to check to make sure you get 100% coverage, any missed spots will be very difficult to fix later. Let the size dry for the amount of time the manufacturer recommends. Usually 12 hours. The slow set size will remain tacky for 12 to 24 hours after the initial drying time, which means you don't have to be as careful when waiting for it to dry. The quick drying size will only remain tacky for about an hour; you must watch it carefully to determine the best time to start applying leaf. A good test is to run the hairs on the back of your hand over the sized area; the size is ready when you feel a slight tug on the hairs. If it is too wet you will feel little resistance, if it is too dry you will feel no resistance. The size should be tacky, if it is not you will need to apply another coat and catch it earlier this time.

Transfer one sheet of gold leaf to your gilders pad. Using your knife cut the sheet into manageable pieces, about 1" square works well.

Using a 1" gilders tip or the gilders knife, pick up a square of leaf and place it onto the surface to be gilded. For the inside of the eggs concave surfaces I try to form the gilders tip into a rounded shape so that the leaf corners do not stick prematurely which will cause the leaf to crack when the rest of it is patted down.

Using a very soft brush, gilders mop, or the gilders tip, pat down the leaf into the size. Be careful not to touch any exposed size, as you risk removing the tack.

Repeat placing the 1" squares all over the surface until it is completely covered. Any small areas or cracks in the leaf should be filled in at this time with small pieces of leaf.

Once you have the entire surface covered, you can use the very soft brush or mop to press down the surface and brush away any loose leaf. See the directions below for making shell gold from the loose pieces of gold leaf.

Let the size dry for a day or two and using a very soft lint free cloth, cotton ball, or cheese cloth rub the entire gilded surface down to remove any loose pieces and burnish the surface to the shine you want.

That's it. No finish is required over the gold, it will never tarnish. If you do apply a finish, the shine will go down considerably, but will be able to be handled a lot better.

If the gilded surface isn't quite covered completely, you can double gild to make a more uniform finish. Simply add another layer of size and put another layer of gold leaf on top of the first, following the same directions. To touchup small sections or scratches, you can apply size with a very small 000 brush, allowing it to dry for the requisite amount of time, and applying patches of leaf over it. Be sure to allow the size to dry completely before rubbing it out.

There are a few things that make gold leafing easier:

# **Gilders Glossary**

**Gilders Pad** This is simply a piece of chamois, suede, or other very soft leather attached to a piece of plywood with batting in between. This makes a soft cushion to place gold leafs on to straighten them out and to cut them into pieces. The pad also needs a windscreen around the back and sides of it. The smallest breeze will send your gold leafs into the air or cause them to crumple up.

**Gilders Knife** This is a long thin knife, similar to a spatula that oil painters use. That is just sharp enough to cut the leaf, but not sharp enough to cut the cushion. You can use a single edge razor blade or exacto knife. To cut the leaf you move the knife in a modified sawing motion over the leaf with only the slightest downward pressure.

Gilders Tip This is a special brush that has a single or double row of very straight squirrel hairs attached to a cardboard handle. The tip is drawn across your hair, the side of your nose, forehead, or back of your hand. The very small amount of oil that it picks up, allows the tip to pick up the very fragile gold leafs and place them where you want them. It is not static electricity that the gold leaf sticks to, but the oil. You do not want static electricity pulling the gold leaf off the cushion onto the tip. Use a anti-static spray around your work area to minimize this. If there isn't enough oil on your skin, you can apply a very thin coat of Vaseline to the back of your hand, then rub the tip on that.

**Gold Leaf** Gold leaf or metal leaf is available in many different types in different weights. The most common is 22ct or 23ct gold. But silver, copper, aluminum, platinum, and other metals are available.

*Surface Leaf* - Free leafs of pure gold sandwiched between tissue paper. Small imperfections and holes are normal.

*Glass Leaf* - Same as Surface Leaf, but a little better quality. Used to make signs on glass, so there are less imperfections and holes.

*Patent Leaf* - Leafs of pure gold attached to a paper backing. This makes the leaves a little easier to handle, especially when working outside. These are primarily for sign makers.

Composition Leaf - Are alloys made to look like real gold, silver, or many other metals.

**Variegated Leaf** – Are composition leafs that have striking colors that are burnt into the leaf. These will tarnish over time and require some sort of sealer.

**Gilders Mop** A very soft brush used to pat down the gold leaf into the size.

**Shell Gold** This is finely ground pure gold in a medium that allows you to brush it onto a surface. It's called shell gold because it was traditionally stored in a shell. You can make your own shell gold from all the loose-leaf pieces you save from your gilding projects. When you have enough, place them in a mortar with a pinch of salt and a about a half teaspoon of honey. Using a pestle, grind the mixture to a very fine paste. Place the paste in a test tube or small glass container. Add some distilled water and mix thoroughly, allow the gold to settle to the bottom and decant off most of the water. Repeat adding water, letting it set, and decanting the water until the water that comes off is neither salty nor sweet. Remove all the water you can from the sludge and transfer to a small container or shell. Mix in a drop or two of Gum Arabic and allow it to dry. You can now use the shell gold to touch up mistakes or use like paint to gild small objects.

# **Suppliers**

# **Swans Down Mop**

U-beaut Enterprises Australia http://www.ubeaut.com

#### Wax

Conservator's Wax – Similar to Renaissance but much cheaper Lee Valley http://www.leevalley.com 1-800-267-8735

Renaissance Wax Liberon/Star Finishing Supply http://www.woodfinishsupply.com 1-800-245-5611

### **Gold Leaf and Gilders Supplies**

Curry's Art Supplies http://www.currys.com 1-800-268-2969

Pearl Paint http://www.pearlpaint.com 1-800-451-7327

Dick Blick Art Materials http://www.dickblick.com 1-800-828-4548